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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,004	11/16/2001	Tse-Hua Lan	US 010611	2589

24737 7590 11/18/2004

PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
P.O. BOX 3001  
BRIARCLIFF MANOR, NY 10510

EXAMINER

SENF1, BEHROOZ M

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 11/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/996,004

**Applicant(s)**

LAN ET AL.

**Examiner**

Behrooz Senfi

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 7-15 is/are pending in the application.
- 4a) Of the above claim(s) 7-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Applicant's amendment filed Jun 30, 2004 cancelled claims 1 – 6 and amended claims 7, 9, 10 and 15.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 7 - 9, 12 – 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US 2002/0037053) in view of Chen et al (US 2003/0112869).

Regarding claims 7 and 9, Kim '053 teaches a method for "decoding efficiency of An encoded data video signal employing an MPEG video" (i.e. fig. 2), having "VLD and IQ and IDCT and MC and complexity selector" (i.e. fig. 2, VLD 3, IQ 4, IDCT 5 and MC 6), and "receiving a compressed video data stream ....." (i.e. fig. 2, VLD 3) and "determining the type of motion vectors ....." (i.e. fig. 10) and "dequantizing the decoded data" (i.e. fig. 2, IQ 4), and "employing the IDCT ....." (i.e. fig. 2, IDCT 5) and "employing MC ....." (i.e. fig. 2, MC 6). Although Kim '053 fails to specifically teach that the full motion compensation is used regardless of the type of motion, but he does teach motion type selection of at least full motion compensation (i.e. page 6, sections 0084 and 0082 and 0087). Chen '869 shows that reduction or up-conversion is a simple matter of memory size and therefore, it would have been obvious to one skilled in the art at the time of the invention was made to combine the teaching of Kim '053 and Chen

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'869 and produce a full motion compensation regardless of motion type, that is down-sampled based on memory constraints. In other words reducing  $\frac{1}{2}$  pel resolution searches to full-pel motion compensation is well within the level of one ordinary skill as shown by Chen. Moreover this selective down sampling is done based on memory or regardless of motion type (i.e. fig. 1, section 0032).

Regarding claims 8 and 13, combination of Kim '053 and Chen '869 teach, "half pixel motion vector and fractional motion vector" (i.e. fig. 13).

Regarding claim 12, the limitations claimed are substantially similar to claim 7, therefore the grounds for rejecting claim 7, also apply here. Furthermore, the additional limitation "complexity selector to detect a motion vector type from the VLD" reads on (fig. 2, motion vector, motion type in Kim).

Regarding claim 15, combination of Kim '053 and Chen '869 teach, "one of p-frame, B-frame and a combination of P and B frames" (i.e. page 6, section 0084 in Kim).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 10, 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim '053 in view of Chen '869 as applied to claims 7 - 9, 12 - 13 and 15 above, further in view of Zhong et al (US 2002/0163969).

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Regarding claims 10 and 14, combination of Kim '053 and Chen '869 teach, a method for "decoding an MPEG video signal for display and converting non-full pixel motion vector to full pixel motion vector and producing a motion compensated MPEG video picture based on the converted full pixel motion vector" as discussed above, claim 7. Combination of Kim '053 and Chen '869 fails to explicitly teach, "rounding the odd number MV to the nearest even number". However, the above claim limitation is well known and used in the prior art of the record as evidenced by Zhong '969 (i.e. pages, 2 and 3, sections 0036 and 0038). Therefore, taking the combined teaching of Kim '053 and Chen '869 and Zhong '969 as a whole, would make the above limitation "rounding MV" obvious to one having ordinary skill in the art. Doing so would improve the decoding process, which would eliminate irregularities in the output video.

Regarding claim 11, combination of Kim '053 and Chen '869 and Zhong '969 teach, "one of p-frame, B-frame and a combination of P and B frames" (i.e. page 6, section 0084 in Kim).

### Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Behrooz Senfi** whose telephone number is **(703)305-0132**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Chris Kelley** can be reached on **(703)305-4856**.

**Any response to this action should be mailed to:**

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Commissioner of Patents and Trademarks

Washington, D.C. 20231

**Or faxed to:**


**(703) 872-9314**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relative to the status of the application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

B. S. B. S.

11/8/2004

  
CHRIS KELLEY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600